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Commissioner for Patents, P.O. Box 1450

Alexandria, VA 22313 on April 18, 2006



Frank C. Eisenschenk, Ph.D., Patent Attorney

RESPONSE TO NOTIFICATION OF  
DEFECTIVE RESPONSE

Patent Application

Docket No. ARS-104

Serial No. 10/510,658

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants : Amanda Proudfoot, Marie Kosco-Vilbois, Tracy Handel  
Serial No. : 10/510,658  
Filed : October 7, 2004  
Conf. No. : 9141  
For : Novel Antagonists of MCP Proteins

Mail Stop PCT

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

RESPONSE TO NOTIFICATION OF DEFECTIVE RESPONSE

Sir:

A Transmittal Letter, along with the executed Declaration (37 CFR 1.63) for Utility Application Using an Application Data Sheet and Power of Attorney forms and Submission of Sequence Listing Under 37 CFR §§1.821-1.825 providing the sequence listing in computer readable format, was submitted to the Patent Office on May 16, 2005 in response to a Notification of Missing Requirements Under 35 U.S.C. 371 in the United States Designated/Elected Office (DO/EO/US) dated March 18, 2005. A Notification of Defective Response dated April 3, 2006 was received from the Patent and Trademark Office, and a copy of the Notification is enclosed herewith. The Raw Sequence Listing Error Report attached to the Notification indicates that the organism at sequence identifier <213> in SEQ ID NOs: 2 and 3 is an "invalid response."

Attached with this Response is a replacement Submission of Sequence Listing Under 37 CFR §§ 1.821-1.825 and an Amendment Under 37 CFR §1.825(a) through (c).

The Commissioner is hereby authorized to charge any additional fees which may be required to Deposit Account No. 19-0065.

Respectfully submitted,



Frank C. Eisenschenk, Ph.D.

Patent Attorney

Registration No. 45,332

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P.O. Box 142950  
Gainesville, FL 32614-2950

FCE/sl

Attachments: Submission of Sequence Listing Under 37 CFR §§1.821-1.825; Amendment Under 37 CFR §1.825(a) through (c); copy of Notification of Defective Response.



## UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

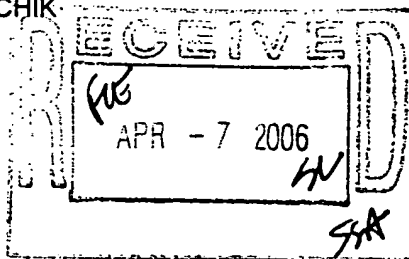
U.S. APPLICATION NUMBER NO.	FIRST NAMED APPLICANT	ATTY. DOCKET NO.
10/510,658	Amanda Proudfoot	ARS-104

INTERNATIONAL APPLICATION NO.
PCT/EP03/50097

I.A. FILING DATE	PRIORITY DATE
04/09/2003	04/10/2002

23557

SALIWANCHIK LLOYD & SALIWANCHIK  
A PROFESSIONAL ASSOCIATION  
PO BOX 142950  
GAINESVILLE, FL 32614-2950



CONFIRMATION NO. 9141

371 FORMALITIES LETTER



\*OC000000018443095\*

Date Mailed: 04/03/2006

## NOTIFICATION OF DEFECTIVE RESPONSE

The following items have been submitted by the applicant or the IB to the United States Patent and Trademark Office as a Designated / Elected Office (37 CFR 1.495)

- Priority Document
- Copy of the International Application filed on 10/07/2004
- Copy of the International Search Report filed on 10/07/2004
- Copy of IPE Report filed on 10/07/2004
- Preliminary Amendments filed on 10/07/2004
- Biochemical Sequence Diskette filed on 05/18/2005
- Oath or Declaration filed on 05/18/2005
- Biochemical Sequence Listing filed on 05/18/2005
- Request for Immediate Examination filed on 10/07/2004
- U.S. Basic National Fees filed on 10/07/2004
- Priority Documents filed on 10/07/2004
- Power of Attorney filed on 05/18/2005

Applicant's response filed 05/18/2005 is hereby acknowledged. The following requirements set forth in the NOTIFICATION of MISSING REQUIREMENTS mailed 03/18/2005 have not been completed.

The applicant needs to satisfy supplemental fees problems indicated below.

The following items **MUST** be furnished within the period set forth below in order to complete the requirements for acceptance under 35 U.S.C. 371:

- Surcharge (for late submission of filing fee, search fee, examination fee or oath or declaration) as set forth in 37 CFR 1.492(h) of \$130 was not received.

## SUMMARY OF FEES DUE:

Total additional fees required for this application is **\$130** for a Large Entity:

- **\$130 Surcharge.**

- A copy of the "Sequence Listing" in computer readable form has been submitted. However, the content of the computer readable form does not comply with the requirements of 37 CFR 1.822 and/or 1.823, as indicated on the attached copy of the marked -up "Raw Sequence Listing." Applicant must provide a substitute computer readable form (CRF) copy of the "Sequence Listing" and a statement that the content of the sequence listing information recorded in computer readable form is identical to the written (on paper or compact disc) sequence listing and, where applicable, includes no new matter, as required by 37 CFR 1.821(e), 1.821(f), 1.821(g), 1.825(b), or 1.825(d).

**Applicant is required to complete the response within a time limit of ONE MONTH from the date of this Notification or within the time remaining in the response set forth in the Notification of Missing Requirements, whichever is the longer. No extension of this time limit may be granted under 37 CFR 1.136, but the period for response set in the Notification of Missing Requirements may be extended under 37 CFR 1.136(a).**

**For questions regarding compliance to 37 CFR 1.821-1.825 requirements, please contact:**

- **For Rules Interpretation, call (571) 272-0951**
- **For Patentin Software Program Help, call Patent EBC at 1-866-217-9197 or directly at 703-305-3028 / 703-308-6845 between the hours of 6 a.m. and 12 midnight, Monday through Friday, EST.**
- **Send e-mail correspondence for Patentin Software Program Help @ [ebc@uspto.gov](mailto:ebc@uspto.gov)**

Applicant is reminded that any communications to the United States Patent and Trademark Office must be mailed to the address given in the heading and include the U.S. application no. shown above (37 CFR 1.5)

*A copy of this notice **MUST** be returned with the response.*

LAMONT M HUNTER

Telephone: (703) 308-9140 EXT 201

**PART 1 - ATTORNEY/APPLICANT COPY**

U.S. APPLICATION NUMBER NO.	INTERNATIONAL APPLICATION NO.	ATTY. DOCKET NO.
10/510,658	PCT/EP03/50097	ARS-104

MML w/ Letter

## **STIC Biotechnology Systems Branch**

### **RAW SEQUENCE LISTING** **ERROR REPORT**

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 10/510,658  
Source: PG  
Date Processed by STIC: 2/6/06

**THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.**

**PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:**

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,**
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY**

**FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, TELEPHONE: 571-272-2510; FAX: 571-273-0221**

**TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 4.2.2 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:**

**<http://www.uspto.gov/web/offices/pac/checker/chkrnote.htm>**

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.

Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.

Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

- 1. EFS-Bio (<<http://www.uspto.gov/efb/efs/downloads/documents.htm>> , EFS Submission User Manual - ePAVE)**
- 2. U.S. Postal Service: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450**
- 3. Hand Carry, Federal Express, United Parcel Service, or other delivery service (EFFECTIVE 01/14/05):**  
U.S. Patent and Trademark Office, Mail Stop Sequence, Customer Window, Randolph Building, 401 Dulany Street, Alexandria, VA 22314

Revised 01/24/05

## Raw Sequence Listing Error Summary

### ERROR DETECTED

### SUGGESTED CORRECTION

SERIAL NUMBER:

10/5/0, 658

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

- 1      Wrapped Nucleics  
    Wrapped Aminos     The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."
  
- 2      Invalid Line Length     The rules require that a line not exceed 72 characters in length. This includes white spaces.
  
- 3      Misaligned Amino  
    Numbering     The numbering under each 5<sup>th</sup> amino acid is misaligned. Do not use tab codes between numbers; use space characters, instead.
  
- 4      Non-ASCII     The submitted file was not saved in ASCII(DOS) text, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.
  
- 5      Variable Length     Sequence(s)      contain n's or Xaa's representing more than one residue. Per Sequence Rules, each n or Xaa can only represent a single residue. Please present the maximum number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.
  
- 6      PatentIn 2.0  
    "bug"     A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s)     . Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.
  
- 7      Skipped Sequences  
    (OLD RULES)     Sequence(s)      missing. If intentional, please insert the following lines for each skipped sequence:  
                               (2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)  
                               (i)     SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading)  
                               (xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)  
                               This sequence is intentionally skipped  
  
                               Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to include the skipped sequences.
  
- 8      Skipped Sequences  
    (NEW RULES)     Sequence(s)      missing. If intentional, please insert the following lines for each skipped sequence.  
                               <210> sequence id number  
                               <400> sequence id number  
                               000
  
- 9      Use of n's or Xaa's  
    (NEW RULES)     Use of n's and/or Xaa's have been detected in the Sequence Listing.  
                               Per 1.823 of Sequence Rules, use of <220>-<223> is MANDATORY if n's or Xaa's are present.  
                               In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.
  
- 10      Invalid <213>  
    Response     Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is required when <213> response is Unknown or is Artificial Sequence
  
- 11      Use of <220>     Sequence(s)      missing the <220> "Feature" and associated numeric identifiers and responses.  
                               Use of <220> to <223> is MANDATORY if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section.  
                               (See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)
  
- 12      PatentIn 2.0  
    "bug"     Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.
  
- 13      Misuse of n/Xaa     "n" can only represent a single nucleotide; "Xaa" can only represent a single amino acid



PCT

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/510,658

DATE: 02/06/2006

TIME: 14:07:01

Input Set : F:\ARS-104.seq.list.txt

Output Set: N:\CRF4\02012006\J510658.raw

3 <110> APPLICANT: Applied Research Systems ARS holding  
 5 <120> TITLE OF INVENTION: NOVEL ANTAGONISTS OF MCP PROTEINS  
 7 <130> FILE REFERENCE: WO512  
 C--> 9 <140> CURRENT APPLICATION NUMBER: US/10/510,658  
 C--> 9 <141> CURRENT FILING DATE: 2004-10-07  
 9 <160> NUMBER OF SEQ ID NOS: 8  
 11 <170> SOFTWARE: PatentIn version 3.0  
 13 <210> SEQ ID NO: 1  
 14 <211> LENGTH: 99  
 15 <212> TYPE: PRT  
 16 <213> ORGANISM: Homo sapiens  
 18 <400> SEQUENCE: 1  
 20 Met Lys Val Ser Ala Ala Leu Leu Cys Leu Leu Ile Ala Ala Thr  
 21 1 5 10 15  
 23 Phe Ile Pro Gln Gly Leu Ala Gln Pro Asp Ala Ile Asn Ala Pro Val  
 24 20 25 30  
 26 Thr Cys Cys Tyr Asn Phe Thr Asn Arg Lys Ile Ser Val Gln Arg Leu  
 27 35 40 45  
 29 Ala Ser Tyr Arg Arg Ile Thr Ser Ser Lys Cys Pro Lys Glu Ala Val  
 30 50 55 60  
 32 Ile Phe Lys Thr Ile Val Ala Lys Glu Ile Cys Ala Asp Pro Lys Gln  
 33 65 70 75 80  
 35 Lys Trp Val Gln Asp Ser Met Asp His Leu Asp Lys Gln Thr Gln Thr  
 36 85 90 95  
 38 Pro Lys Thr  
 41 <210> SEQ ID NO: 2  
 42 <211> LENGTH: 77  
 43 <212> TYPE: PRT  
 44 <213> ORGANISM: synthetic construct  
 46 <400> SEQUENCE: 2  
 48 Met Gln Pro Asp Ala Ile Asn Ala Pro Val Thr Cys Cys Tyr Asn Phe  
 49 1 5 10 15  
 51 Thr Asn Arg Lys Ile Ser Val Gln Arg Leu Ala Ser Tyr Arg Arg Ile  
 52 20 25 30  
 54 Thr Ser Ser Lys Cys Pro Lys Glu Ala Val Ile Phe Lys Thr Ile Val  
 55 35 40 45  
 57 Ala Lys Glu Ile Cys Ala Asp Pro Lys Gln Lys Trp Val Gln Asp Ser  
 58 50 55 60  
 60 Ile Asp His Leu Asp Lys Gln Thr Gln Thr Pro Lys Thr  
 61 65 70 75  
 63 <210> SEQ ID NO: 3  
 64 <211> LENGTH: 77  
 65 <212> TYPE: PRT

pp 1-2  
 Does Not Comply  
 Corrected Diskette Needed

Invalid (213) response - see  
 item 10 on  
 Enu  
 summary  
 sheet

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/510,658

DATE: 02/06/2006

TIME: 14:07:01

Input Set : F:\ARS-104.seq.list.txt

Output Set: N:\CRF4\02012006\J510658.raw

```

66 <213> ORGANISM: synthetic construct
68 <400> SEQUENCE: 3
70 Met Gln Pro Asp Ala Ile Asn Ala Pro Val Thr Cys Cys Tyr Asn Phe
71 1 5 10 15
73 Thr Asn Ala Ala Ile Ser Val Gln Arg Leu Ala Ser Tyr Arg Arg Ile
74 20 25 30
76 Thr Ser Ser Lys Cys Pro Lys Glu Ala Val Ile Phe Lys Thr Ile Val
77 35 40 45
79 Ala Lys Glu Ile Cys Ala Asp Pro Lys Gln Lys Trp Val Gln Asp Ser
80 50 55 60
82 Ile Asp His Leu Asp Lys Gln Thr Gln Thr Pro Lys Thr
83 65 70 75
85 <210> SEQ ID NO: 4
86 <211> LENGTH: 76
87 <212> TYPE: PRT
88 <213> ORGANISM: Homo sapiens
90 <400> SEQUENCE: 4
92 Gln Pro Asp Ala Ile Asn Ala Pro Val Thr Cys Cys Tyr Asn Phe Thr
93 1 5 10 15
95 Asn Arg Lys Ile Ser Val Gln Arg Leu Ala Ser Tyr Arg Arg Ile Thr
96 20 25 30
98 Ser Ser Lys Cys Pro Lys Glu Ala Val Ile Phe Lys Thr Ile Val Ala
99 35 40 45
101 Lys Glu Ile Cys Ala Asp Pro Lys Gln Lys Trp Val Gln Asp Ser Met
102 50 55 60
104 Asp His Leu Asp Lys Gln Thr Gln Thr Pro Lys Thr
105 65 70 75
107 <210> SEQ ID NO: 5
108 <211> LENGTH: 76
109 <212> TYPE: PRT
110 <213> ORGANISM: Homo sapiens
112 <400> SEQUENCE: 5
114 Gln Pro Asp Ser Val Ser Ile Pro Ile Thr Cys Cys Phe Asn Val Ile
115 1 5 10 15
117 Asn Arg Lys Ile Pro Ile Gln Arg Leu Glu Ser Tyr Thr Arg Ile Thr
118 20 25 30
120 Asn Ile Gln Cys Pro Lys Glu Ala Val Ile Phe Lys Thr Lys Arg Gly
121 35 40 45
123 Lys Glu Val Cys Ala Asp Pro Lys Glu Arg Trp Val Arg Asp Ser Met
124 50 55 60
126 Lys His Leu Asp Gln Ile Phe Gln Asn Leu Lys Pro
127 65 70 75
129 <210> SEQ ID NO: 6
130 <211> LENGTH: 76
131 <212> TYPE: PRT
132 <213> ORGANISM: Homo sapiens
134 <400> SEQUENCE: 6
136 Gln Pro Val Gly Ile Asn Thr Ser Thr Thr Cys Cys Tyr Arg Phe Ile
137 1 5 10 15

```



## RAW SEQUENCE LISTING

DATE: 02/06/2006

PATENT APPLICATION: US/10/510,658

TIME: 14:07:01

Input Set : F:\ARS-104.seq.list.txt

Output Set: N:\CRF4\02012006\J510658.raw

```

139 Asn Lys Lys Ile Pro Lys Gln Arg Leu Glu Ser Tyr Arg Arg Thr Thr
140          20          25          30
142 Ser Ser His Cys Pro Arg Glu Ala Val Ile Phe Lys Thr Lys Leu Asp
143          35          40          45
145 Lys Glu Ile Cys Ala Asp Pro Thr Gln Lys Trp Val Gln Asp Phe Met
146          50          55          60
148 Lys His Leu Asp Lys Lys Thr Gln Thr Pro Lys Leu
149 65          70          75
151 <210> SEQ ID NO: 7
152 <211> LENGTH: 75
153 <212> TYPE: PRT
154 <213> ORGANISM: Homo sapiens
156 <400> SEQUENCE: 7
158 Gln Pro Asp Ala Leu Asn Val Pro Ser Thr Cys Cys Phe Thr Phe Ser
159 1          5          10          15
161 Ser Lys Lys Ile Ser Leu Gln Arg Leu Lys Ser Tyr Val Ile Thr Thr
162          20          25          30
164 Ser Arg Cys Pro Gln Lys Ala Val Ile Phe Arg Thr Lys Leu Gly Lys
165          35          40          45
167 Glu Ile Cys Ala Asp Pro Lys Glu Lys Trp Val Gln Asn Tyr Met Lys
168          50          55          60
170 His Leu Gly Arg Lys Ala His Thr Leu Lys Thr
171 65          70          75
173 <210> SEQ ID NO: 8
174 <211> LENGTH: 74
175 <212> TYPE: PRT
176 <213> ORGANISM: Homo sapiens
178 <400> SEQUENCE: 8
180 Gly Pro Ala Ser Val Pro Thr Thr Cys Cys Phe Asn Leu Ala Asn Arg
181 1          5          10          15
183 Lys Ile Pro Leu Gln Arg Leu Glu Ser Tyr Arg Arg Ile Thr Ser Gly
184          20          25          30
186 Lys Cys Pro Gln Lys Ala Val Ile Phe Lys Thr Lys Leu Ala Lys Glu
187          35          40          45
189 Ile Cys Ala Asp Pro Lys Lys Lys Trp Val Gln Asp Ser Met Lys Tyr
190          50          55          60
192 Leu Asp Gln Lys Ser Pro Thr Pro Lys Pro
193 65          70

```

**VERIFICATION SUMMARY**

PATENT APPLICATION: US/10/510,658

DATE: 02/06/2006

TIME: 14:07:02

Input Set : F:\ARS-104.seq.list.txt

Output Set: N:\CRF4\02012006\J510658.raw

L:9 M:270 C: Current Application Number differs, Replaced Current Application No

L:9 M:271 C: Current Filing Date differs, Replaced Current Filing Date